

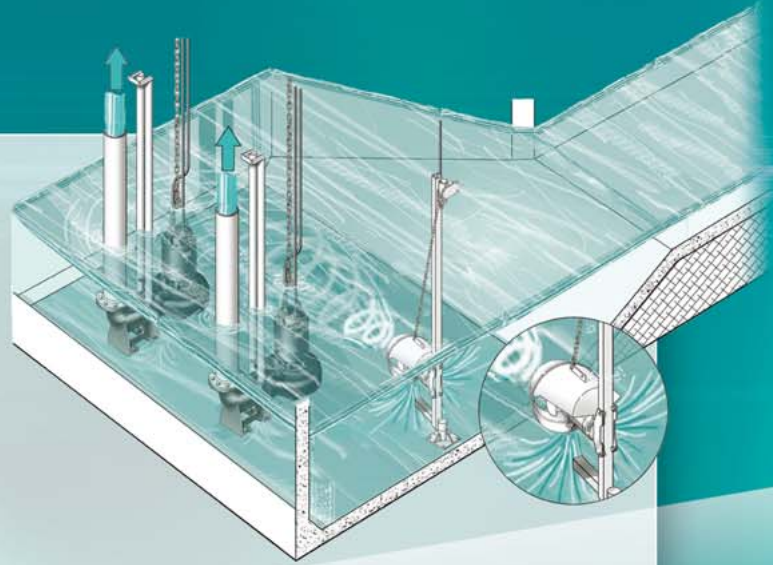
# Save energy with powerful mixing. Meet wide-ranging needs with various lineups

## High Speed Submersible Mixer SM Series

0.25 - 15 kW

- Mixing in a pump well, sludge storage tank or equalization tank
- Crushing scum

For details,  
refer to pages  
**4-15p**



# SM/SME



With Tungsten Carbide Spraying Propeller  
**SM-W/SME-W Series**  
0.9 - 7.5kW



# SM-W/SME-W

For details,  
refer to pages  
**16-17p**

**Aeration Mixer  
SME-R Series**  
0.75, 1.5kW



# SME-R

For details,  
refer to pages  
**18-19p**

## Medium Speed Submersible Mixer SMM Series

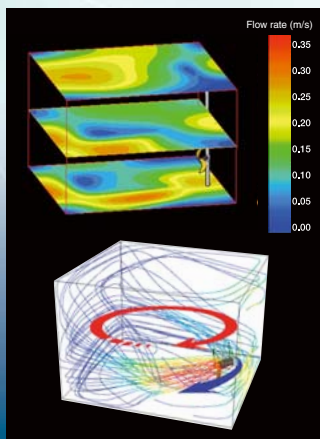
0.75 - 2.2kW

- Mixing of denitrification tank, reaction tank
- Mixing the carriers in wastewater treatment

For details,  
refer to pages  
**20-21p**



# SMM



## Low Speed Submersible Mixer SML Series

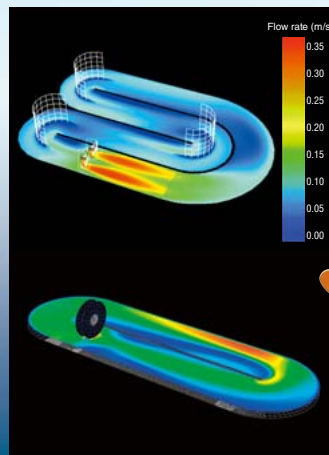
1.5 - 3.7 kW

- Oxidation ditch
- Water flow generation

For details,  
refer to pages  
**22-25p**



# SML

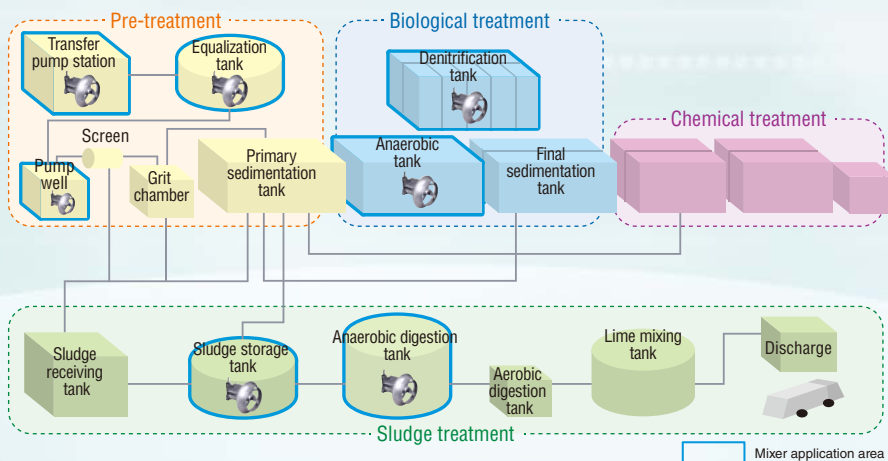


# ShinMaywa's submersible mixers can be installed anywhere.

With various lineups, we will address requirements for agitation, mixture and water flow generation in water-related facilities in all fields, including industry, water quality and the environment.

Each and every one of our products incorporates advanced technologies perfected by ShinMaywa through the development of our water treatment-related equipment.

## Example of Submersible Mixer Application at Wastewater Treatment Plant



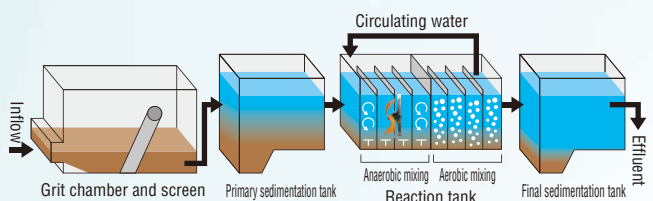
### Purpose

- Preventing the sedimentation of activated sludge
- Uniform mixing
- Reducing scum formation

### Points of use

- Sludge storage tank
- Pump station for wastewater collection system
- Pump well
- pH regulating tank
- Reaction tank (Denitrification tank, Anaerobic tank)

## Advanced Wastewater Treatment Method



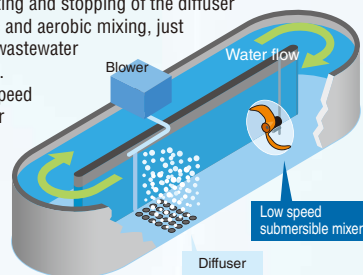
Conventionally, purification is performed by mixing activated sludge while supplying oxygen. However, the conventional method has the disadvantage of insufficient removal of nitrogen and phosphorus. To overcome this disadvantage, anaerobic mixing, in which no oxygen is supplied, and aerobic mixing, in which oxygen is supplied, combine to maximize the capability of various bacteria, as an advanced wastewater treatment method.

## OD (Oxidation Ditch) Method

The oxidation ditch method performs aeration while circulating activated sludge in a circulating channel.

The repeated starting and stopping of the diffuser enables anaerobic and aerobic mixing, just like an advanced wastewater treatment method.

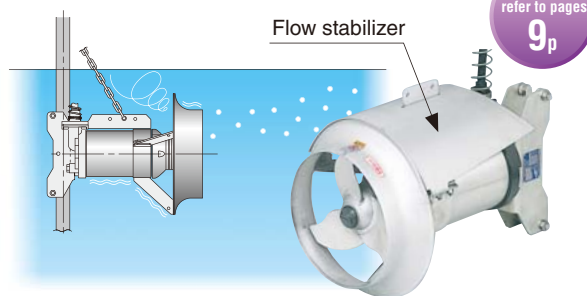
ShinMaywa low speed submersible mixer can be used for this system.



## Installation with the mixer oriented downward



## Flow stabilizer for a low water level (optional)



## Generating a water flow



For various examples of submersible mixers, refer to pages 26 and 27.

## Standard Specifications

### 50Hz Specifications

Model	Rated output (kW)	No. of poles	Phase	Synchronous rotation speed (min <sup>-1</sup> )	Propeller code	Propeller diameter (mm)	Power for mixing clear water (kW)	Flow (m <sup>3</sup> / min)	Thrust (N)	Weight (kg)	
SM250	0.25	4	3	1,500	—	150	0.21	1.8	53	20	
SM400	0.4				—	180	0.33	2.7	80	23	
SM750	0.75				—		0.55	3.5	140	25	
SME750					(0.66)* <sup>1</sup>	28					
SME15JA · JB	1.5	6		1,000	2513	254	1.4	7.4	300	52	
					2512		1.0	6.5	230		
SME15A · B					*3012	300	1.6	10.5	430		54
					3011		1.4	9.8	380		
SME22JA · JB	2.2	4		1,500	2212	220	1.8	6.4	300	52	
					2211		1.1	5.1	190		
SME28A · B	2.8	8		750	3513	350	2.1	15.0	650	75	
					3512		1.9	14.0	570		
			3511		1.6		13.0	490			
SME40A · B			4		3515		3.2	17.0	850		93
					3514		2.6	16.0	750		
					3513		2.2	15.0	650		
SM50A · B	5	10	600	*512	525	5.5	35.5	1,620	145		
				513		4.9	34.2	1,500			
				514		4.4	30.6	1,200			
				515		3.4	26.5	900			
SM75A · B	7.5			*510		8.2	43.0	2,370	160		
				511		7.4	40.0	2,050			
				512		6.4	35.5	1,620			
SM110A	8.8			4		3	311	503	780	7.2	63.4
SM150A	13.5	352	502		10.4		71.5			3,300	
	15	367	501		11.8		74.7			3,600	

\*1: Value in ( ) shows consumption power for mixing clear water.

\*2: Propeller code marked with \* cannot be used in the liquid that contains a large amount of foreign objects or has a large specific gravity (1.03 or higher).

• For mixers with motor rated output not specified in these tables, please contact us.

## 60Hz Specifications

Model	Rated output (kW)	No. of poles	Phase	Synchronous rotation speed (min <sup>-1</sup> )	Propeller code	Propeller diameter (mm)	Power for mixing clear water (kW)	Flow (m <sup>3</sup> / min)	Thrust (N)	Weight (kg)
SM250	0.25	4	3	1,800	—	136	0.22	1.5	44	20
SM400	0.4				—	150	0.32	2.0	60	23
SM750	0.75				—	180	0.6	3.4	125	25
SME750					—		(0.7)* <sup>1</sup>			
SME15JA · JB	1.5	6		1,200	2523	254	1.3	7.4	300	52
					2522		1.0	6.5	230	
2521					0.7		5.6	175		
SME15A · B					*3022	300	1.7	10.5	430	54
3021	1.5	9.8		380						
SME22JA · JB	2.2	4		1,800	2221	220	1.8	5.8	250	52
SME28A · B	2.8	8		900	3523	350	2.3	15.0	650	75
					3522		2.0	14.0	570	
			3521		1.7		13.0	490		
SME40A · B	4		3525		3.0		17.0	850	93	
			3524		2.6		16.0	750		
			3523		2.3		15.0	650		
SM50A · B	5	12	600	*512	525	5.5	35.5	1,620	145	
				513		4.9	34.2	1,500		
				514		4.4	30.6	1,200		
				515		3.4	26.5	900		
SM75A · B	7.5			*510		8.2	43.0	2,370	160	
				511		7.3	40.0	2,050		
				512		6.4	35.5	1,620		
SM110A	10.5			4		3	328	602	780	8.4
SM150A	15	373	601		12.4		75.7	3,700		

\*1: Value in ( ) shows consumption power for mixing clear water.

\*2: Propeller code marked with \* cannot be used in the liquid that contains a large amount of foreign objects or has a large specific gravity (1.03 or higher).

• For mixers with motor rated output not specified in these tables, please contact us.